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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,713	08/31/2000	Trung T. Doan	303.928US5	4284

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EXAMINER

MACARTHUR, SYLVIA

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,713

Applicant(s)

DOAN, TRUNG T.

Examiner

Sylvia R. MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/19/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

2. Claims 36, 37, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwata et al (US 4,611,553).

Re claims 36 and 37: Iwata et al teaches a dual pipe structure for edge bead removal. The device comprises a dispenser (8) configured to release a chemical toward the edge bead; and a splash controller (4) around (in the vicinity of, in close proximity to) the dispenser, physically unattached from the edge and configured to draw the chemical toward the splash controller, wherein the splash controller to generate a pas pressure around the edge bead that is lower than the ambient gas pressure, and where the splash controller is configured to physically intercept the chemical. See col. 2 lines 17-43.

Re claim 39: The dispenser 8 has a diameter that is smaller than the diameter of the splash controller see the Figures.

Regarding claim 37: The splash controller is around the edge bead. Herein the definition of around is taken to be in the vicinity of as cited in Merriam-Webster Online Dictionary (2C), see Fig. 3.

3. Claims 38, 39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato Masahiko (JP 03-263343).

Re claim 38: Masahiko teaches a splash controller 6 that surrounds a dispenser 5. The splash controller draws the chemical toward the splash controller by suction. The

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phenomena of suction anticipates that the gas pressure around the edge bead is lower than the ambient gas pressure. Regarding the dispenser being configured to release toward an edge bead, this is a matter of an intended use and the apparatus of Masahiko is inherently capable of cleaning the edge bead.

Re claim 39: The diameter of the dispenser is smaller than the diameter of the splash controller according to Fig. 1. of Masahiko.

Re claim 41: Vacuum port is illustrated in Fig.1 of Masahiko.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masahiko.

The teachings of Masahiko were discussed above.

Masahiko fails to teach a second nozzle to treat the underside of the wafer.

However, the duplication of parts was held to have been obvious by *In re Harza* 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Making the duplicate nozzles wherein one treats the top of the wafer and the other treats the bottom of the wafer integral is also an obvious matter of design according to *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965) (A claim to fluid transporting vehicle was rejected as obvious over a prior art reference which differed from the prior art in claiming a brake drum integral with a clamping means, whereas the brake disc and clamp of the prior art comprise several parts

rigidly secured together as a single unit. The court affirmed the rejection holding, among other reasons," that the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice.""). In this case, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a nozzle as taught by Masahiko to treat both sides of the wafer and integral these nozzles to simplify the apparatus design all allow them to be controlled unitarily. Thus, it would have been obvious at the time of the claimed invention to provide the apparatus of Masahiko with a duplicate of the taught nozzle wherein both sides of the wafer are treated.

6. Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata in view of Masahiko.

Re claim 38: Recall the teachings of Iwata in that the dispenser is specifically taught to remove the edge bead and is configured to perform this function.

Iwata does fail however to teach that the splash controller 4 completely surrounds the dispenser 8.

Fig. 1 of Masahiko illustrates that the splash controller completely surrounds the dispenser. The motivation to design the splash controller of Iwata to completely surround the dispenser is that that this configuration provides a great efficiency of suctioned material. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to modify the apparatus of Iwata to completely surround the dispenser rather than have the controller and dispenser be integral and mostly surrounded as illustrated by Iwata.

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Re claim 39: The diameter of the dispenser is smaller than the diameter of the splash controller according to the figures of Iwata.

Re claim 40: Iwata and Masahiko fail to teach a second nozzle to treat the underside of the wafer. However, the duplication of parts was held to have been obvious by *In re Harza* 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Duplicating the nozzles of Masahiko wherein one treats the top of the wafer and the other treats the bottom of the wafer integral is also an obvious matter of design according to *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965) (A claim to fluid transporting vehicle was rejected as obvious over a prior art reference which differed from the prior art in claiming a brake drum integral with a clamping means, whereas the brake disc and clamp of the prior art comprise several parts rigidly secured together as a single unit. The court affirmed the rejection holding, among other reasons, "that the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice."). In this case, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a nozzle as taught by Masahiko to treat both sides of the wafer and integrate these nozzles to simplify the apparatus design all allow them to be controlled unitarily. Thus, it would have been obvious at the time of the claimed invention to provide the apparatus of Masahiko with a duplicate of the taught nozzle wherein both sides of the wafer are treated.

Re claim 41: A vacuum port is illustrated in Fig.1 of Masahiko and in the figures of Iwata.

Response to Arguments

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7. Applicant's arguments, see page 4, filed January 16, 2006, with respect to the prior art of Hurtig failing to anticipate claims 36 and 37 have been fully considered and are persuasive. The rejections of Hurtig has been withdrawn. Additionally, the prior art by Masahiko was introduced to teach a concentric dispenser/splash controller wherein the splash controller completely surrounds the dispenser.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The introduction of new claims 38-41 wherein applicant further limits the present invention to specify that the dispenser is completely surrounded by the splash controller warrants the introduction of the prior art by Masahiko (JP 03-263343).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the hours of 8:30 a.m. and 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Parviz Hassanzadeh

SPE 1763

May 11, 2006



Sylvia MacArthur

Assistant Examiner 1763